

REMARKS

Claims 1-19 are pending in the Application.

Claims 1-19 stand rejected.

I. REJECTION UNDER 35 U.S.C. § 102

The Examiner has rejected claims 1-19 under 35 U.S.C. § 102 as being unpatentable over *Walsh et al*, U.S. Patent No. 4,890,316 ("*Walsh*"). The Applicant respectfully traverses the rejection of claims 1-19.

Claim 1 is directed to a method for operating a communication system including the steps of transmitting a first information frame, selectively receiving the first response in response to transmission of the first information frame, measuring the first amount of time between transmission of the first information frame in receipt of the first response, and selectively modifying a response time value in response to the first amount of time. In order to anticipate, a single prior art reference must teach each and every limitation of the claimed invention, arranged in the same way. MPEP § 2131. With respect to the express limitation of selectively receiving a first response in response to transmission of the first information frame, the Examiner relies on the teaching in *Walsh*, which is directed to a high speed modem, that the receiving modem verifies the accuracy of the transmission. (*Walsh*, col. 3, line 22.) Thus, the Examiner has identified no teaching in *Walsh* directed to a methodology in which the method includes receiving a first response *in response* to a transmission of the first information frame. The teaching in *Walsh* in which the Examiner relies is directed only to the action performed by the receiving modem and, plainly, does not disclose the recited limitation.

Regarding the limitation directed to a step of measuring the first amount of time between transmission of the first information frame and receipt of the first response, the

Examiner provides no teaching in the prior art whatsoever directed to this express limitation of the claimed invention.

With respect to the step of selectively modifying a response time value, the Examiner relies on the teaching in *Walsh* reciting that, "in the event more than a predetermined number of data errors are detected [by the receiving modem] with[in] a predetermined time interval, the receiving modem generates a rate change request which is transmitted over the low-speed channel to the high speed transmitting modem, which responds by reducing the transmission speed of the high speed channel by a predetermined increment." (*Walsh*, col. 3, lines 23-30.) However, the Examiner identifies no teaching directed to a method of selectively modifying a response time value in response to a first amount of time determined in a measuring step of the method. Indeed, as previously shown, the Examiner has provided no teaching in the prior art whatsoever directed to the step of measuring the first amount of time. Additionally, the Examiner relies on the teaching in *Walsh* directed to an LT frame being sent in a first direction over a link and an LA frame returned in an opposite direction over the link to communicate correct receipt of the LT frame. (*Walsh*, col. 6, lines 56-59.) However, it is unclear to the Applicant which limitation of the invention of claim 1 to which this teaching is directed, in that the Examiner has identified nothing in *Walsh* that discloses either measuring a response time or selectively modifying a response time value in response to the measured first amount of time. Because the Examiner has failed to demonstrate that *Walsh* discloses each and every limitation of claim 1, the Applicant respectfully contends that claim 1 is allowable under 35 U.S.C. § 102 over *Walsh*.

Claim 2 depends from claim 1 and recites the further limitation in which the modifying step of claim 1 further comprises the step of incrementing an initial response time value by a time resolution value. The Examiner relies on the same teaching in *Walsh*, directed to the rate change request generated by the receiving modem in rejecting

claim 2. Clearly, by the plain teaching in *Walsh* on which the Examiner relies, the Examiner has identified no teaching in *Walsh* whatsoever directed to a step of incrementing an initial response time value. A claim is anticipated only if each and every element is set forth and the claim is found in a single prior art reference. MPEP § 2131 (citing *Verdegaal Bros. V. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051,1053 (Fed.Cir. 1987)). Consequently, the Applicant respectfully contends that *Walsh* does anticipate claim 2, and, therefore, claim 2 is allowable under 35 U.S.C. § 102 over *Walsh*.

Claim 3 is directed to the method of claim 2 in which the initial response time value is incremented up to a maximum response time value. The Examiner relies on the teaching in *Walsh* directed to a hardware timer, directly controlled by a start bit, to detect higher baud rates (shorter start bits) up to the 19,200 bps maximum port speed. (*Walsh*, col. 14, lines 13-16.) Referring to *Walsh*, it is seen that this teaching refers to a hardware timer for timing a start bit in order to determine a port speed (*Walsh*, column 14, lines 1-12). Thus, the Examiner has identified no teaching in *Walsh* directed to the limitation of claim 3. Therefore, claim 3 is allowable under 35 U.S.C. § 102 over *Walsh*.

Claim 4 is directed to the method of claim 2 in which the initial response time value is a default value. The Examiner simply asserts that *Walsh* discloses the initial response time value as a default value. Without reciting the teachings in *Walsh* in which the Examiner relies, the Examiner points the Applicant to *Walsh* at col. 9, line 46. In context, the teaching on which the Examiner relies recites that "the present modem supports an extended version of the industry standard 'AT Command Set' in the various commands from the DTE to which the modem responds are summarized in the following listings. ... [T]he second listing summarizes the extensions to the command set which have been employed in connection with additional functions, such as, ... control over the non-volatile memory (NRAM) used to store user-defined parameters and *default values*." (*Walsh*, col. 9, lines 36-46, emphasis supplied.) Thus, it is clear that the Examiner has

identified no teaching in *Walsh* directed to the limitation of claim 4. Consequently, the Applicant respectfully contends that claim 4 is allowable under 35 U.S.C. § 102 over *Walsh*.

Claim 5 is directed to the method of claim 1 in which the response time approximates an amount of time the communication system requires to transfer the first information for in between a first data processing system and a second data processing system. The Examiner asserts that the invention in claim 5 is disclosed in *Walsh* as "[t]he response time the mechanism for initiating a speed-up request takes the form of means for monitoring the 'metric value' produced by the trellis-code demodulation process and for generating a speed-up request whenever this metric value repeatedly exceeds a predetermined minimum value during the predetermined time interval." (*Walsh*, col. 3, lines 4-9.) However, referring to the teachings in *Walsh* on which the Examiner relies clearly shows there is no reference to "response time", whatsoever. In order to anticipate, the identical invention must be shown in as complete detail as contained in the claim, and the elements must be arranged as required by the claim. MPEP § 2131. Clearly, the Examiner has identified no teaching directed to a response time approximating an amount of time a communications system requires to transfer a first information frame between first and second data processing systems. Therefore, the Applicant respectfully contends that claim 5 is allowable under 35 U.S.C. § 102 over *Walsh*.

Claim 6 depends from claim 1 and is directed to the method therein, wherein the response time value is dynamically modifiable in response to the first amount of time. The Examiner relies on the teaching in *Walsh* that "the receiving modem attempts to adjust its operating parameters to best match the characteristics of the available channel." in rejecting claim 6. (*Walsh*, col. 3, lines 37-39.) As above, a prior art reference anticipates only if each and every element as set forth in the claim is found in the reference. The Examiner has identified no teaching directed to the limitations of claim 6,

instead relying on a generic disclosure in *Walsh* that is not directed to a response time value that is dynamically modifiable in response to the first amount of time recited in claim 1. Therefore, the Applicant respectfully asserts that claim 6 is allowable under 35 U.S.C. § 102 over the cited prior art.

Claim 7 is directed to a method for operating a communication system including the steps of transmitting a first frame of information, initiating operation of a timer with a first response time, determining when a first query response has been received, and selectively incrementing the first response time when the first query response has been received. The Examiner asserts that claim 7 contains the same limitations as set forth in claim 1 and applies the same ground of rejection as set forth with respect to claim 1. For the reasons recited with respect to claim 1, which will not be repeated here in the interest of brevity, the Applicant respectfully contends that the Examiner has not demonstrated that *Walsh* teaches each and every limitation of claim 7. Moreover, the Examiner has provided no teaching in *Walsh* directed to the step, recited in claim 7, of initiating a timer having a first response time. Neither has the Examiner identified any teaching in *Walsh* directed to the step of determining when a first query response has been received. Thus, because the Examiner has not demonstrated that each and every element with respect to claim 7 is found in *Walsh*, the Applicant respectfully asserts that claim 7 is allowable under 35 U.S.C. § 102 over *Walsh*.

Claim 8 is directed to the method of claim 7 in which the first response time is incremented by a timer resolution value. The Examiner has rejected claim 8 on the same rationale as claim 2. For the reasons recited hereinabove with respect to claim 2, which will not be repeated here in the interest of brevity, the Applicant respectfully contends that claim 8 is also allowable under 35 U.S.C. § 102 over *Walsh*. Additionally, the Examiner has rejected claim 14, which depends from claim 7 and recites the additional limitation that the first response is a default value, on the same grounds on which the

Examiner has rejected claim 4. For the reasons recited hereinabove with respect to claim 4, the Applicant respectfully contends that claim 14 is also allowable under 35 U.S.C. § 102 over the cited prior art.

Claim 9 is directed to the method of claim 7, further including the steps of setting a transmit sequence value when the first frame of information is transmitted, initiating operation of a response timer when the first information frame is transmitted, comparing the transmit sequence value and the receive sequence value when the first response is received, and idling operation of the response timer when the transmit sequence value corresponds to the received sequence value. The Examiner merely relies on the teaching in *Walsh* directed to "transmitting and receiving modems [that] are typically provided with the ability to jointly execute adaptive equalization algorithms under which the high-speed transmitting modem sends a predetermined sequence of training data to the receiving modem. (*Walsh*, col. 33-37.)

Regarding the step of initiating operation of a response timer, the Examiner relies on disclosure in *Walsh* reciting "[c]ommunication between the processors as synchronous and initiated by the receiver 101 which is periodically interrupted by a hardware timer." Referring to *Walsh* in context shows that this teaching in *Walsh* is directed to communication between three processors within a single modem. (*Walsh*, col. 8, lines 55-63.) Thus, the timer referred to in *Walsh* is not directed to the response timer of claim 9. Moreover, the express teaching in *Walsh* is directed to a receiver interrupted by a hardware timer. The Examiner has identified no teaching directed to the initiation of a timer when an information frame is transmitted.

With respect to the step of comparing the transmit sequence value and a receive sequence value when the first response is received, the Examiner contends that this is anticipated by *Walsh* disclosing that, "[a]t the receiving end, the same cyclic computation is performed on the receive data and the resulting computed value is then compared

against the received check value." (*Walsh*, col. 16, lines 38-42.) However, by its express terms, this teaching is directed to a computation performed by the receiving station on received data, it is not directed to the limitation of claim 9, namely comparing a transmit sequence value and a receive sequence value when the *response* is received. With respect to the limitation of claim 9 directed to the step of idling operation of the response timer, the Examiner relies on the teaching in *Walsh* directed to "it [the forward channel buffer] signals the connected DTE (by lowering CTS in hardware, or with a software XOFF signal) to stop sending data until the modem catches up." (*Walsh*, col. 15, lines 48-51.) In other words, the Examiner is relying on the teaching in *Walsh* of a conventional handshake mechanism that informs a data device (a personal computer for example) to stop sending data to the modem. (See *Walsh*, column 15, lines 35-53.) Again, the Examiner has identified no teaching directed to the recited limitation in claim 9 referring to idling the operation of a response timer. Because the Examiner has identified no teaching in *Walsh* directed to the identical invention of claim 9 shown in as complete detail as contained in claim 9, the Applicant respectfully contends that claim 9 is allowable under 35 U.S.C. § 102 over *Walsh*.

Claim 10 is directed to the method of claim 9 further including the step of restarting operation of the response timer when the transmit sequence value differs from the received sequence value. The Examiner relies on teachings in *Walsh* reciting "[t]he mechanism for compensating for the differences in the data flow rates between the phone link and the modem on the one hand, and between the modem and the DTE on the other, is generally called 'flow control'...." (*Walsh*, col. 14, lines 44-55.) Thus, it is incontrovertible that the Examiner has identified no teaching in *Walsh* directed to the step of restarting operation of the response timer when the transmit sequence value differs from the receive sequence value of claim 9. Consequently, the Applicant respectfully

asserts that claim 10 is not anticipated by *Walsh* and, thus, is allowable under 35 U.S.C. § 102 over *Walsh*.

Claim 11 is directed to the method of claim 7 and further includes the steps of transmitting a second information frame, selectively receiving a second response in response to transmission of the second information frame, measuring a second amount of time between the transmission of the second information frame and receipt of the second response, and selectively initializing a query timer with a maximum response time value. By contrast, the Examiner relies on the teaching in *Walsh* that "[i]f the signal quality, as indicated by RSCATTER is good for 90% of that 10-second interval, a speed-up is requested" (*Walsh*, col. 19, lines 56-58), and "[b]y utilizing a hardware timer which is directly controlled by the start bit, it is possible to detect higher baud rates (shorter start bits) up to the 19200 bps maximum port speed" (*Walsh*, col. 14, lines 14-16). Referring to *Walsh*, in context, it is incontrovertible that with respect to the latter teaching in *Walsh*, the disclosure is directed a method of measuring the serial port speed by timing the start bit using a hardware timer. (*Walsh*, col. 14, lines 11-16.) Clearly the Examiner has identified no teaching directed to the step of measuring a second amount of time between transmission of the second information frame and receipt of the second response. Furthermore, it is also clear that the teaching relied upon by the Examiner directed to the speed-up request has nothing to do with the aforementioned hardware timer. That is, the two teachings relied upon by the Examiner are unrelated. Thus, it is incontrovertible that the Examiner has not provided disclosure in *Walsh* directed to each and every limitation with respect to claim 11. Consequently, the Applicant respectfully asserts that claim 11 is allowable under 35 U.S.C. § 102 over *Walsh*.

Claim 12 is directed to the method of claim 11 and recites the further step of selectively modifying the response time value to correspond to a residual time value remaining in a response timer after the second amount of time is passed. The Examiner

has rejected claim 12, relying on the disclosure in *Walsh* directed to the comparison of metric value, the Viterbi error metric, which is compared to the predetermined threshold level and, if the comparison indicates that the line quality is good, the Boolean value, RSCATTER, referred to above, is passed to the Supervisor [processor]. (See, *Walsh*, col. 19, lines 31-40.) The Examiner has provided no teaching in *Walsh* that disclose the limitations of claim 12. Consequently, the Applicant respectfully contends that claim 12 is allowable under 35 U.S.C. § 102 over *Walsh*.

With respect to claim 13, claim 13 is directed to the method of claim 12 in which the response time value is selectively modified to equal the residual time value plus a timer resolution value. The Examiner has rejected claim 13 on the ground that *Walsh* discloses an attention code requesting a speed increase to 9600 baud. (*Walsh*, col. 20, line 26.) Thus, it is clear that the Examiner has identified no teaching in *Walsh* directed to the limitations of claim 13 reciting a selectively modified response time value equaling the residual time value plus a timer resolution value. Consequently, the Applicant respectfully contends that claim 13 is allowable over *Walsh* under 35 U.S.C. § 102.

Claim 15 depends from claim 14 and recites the method therein in which the default value corresponds to a maximum amount of time the communication system requires to transfer the first frame of information between a first data processing system and a second data processing system. The Examiner relies on the teaching in *Walsh* directed to providing the Supervisor 101 [processor] "with a read only memory for program storage and for the storage of a variety of 'factor default' values for use by the software." (*Walsh*, col. 12, lines 18-20.) The Examiner further refers to a "maximum rate at 19.2k." (Paper No. 3, page 7.) However, the Applicant is uncertain as to the limitation to which this recitation by the Examiner applies, or which teaching in *Walsh* the Examiner is relying upon for this recitation, in that the Examiner points to no teaching in *Walsh* as applied to claim 15 that discloses "the maximum rate at 19.2k. Nevertheless,

by the plain terms of the teachings on which the Examiner relies, the Examiner has provided no teaching in *Walsh* reciting the limitations claim 15, and, consequently, the Applicant respectfully contends that claim 15 is allowable under 35 U.S.C. § 102 over *Walsh*.

With respect to claim 16, claim 16 depends from claim 7 and is directed to the method therein in which the first response time is incremented up to a maximum response time value. The Examiner asserts that the limitations of claim 16 are the same as claim 3, and has rejected claim 16 on the same ground of rejection as claim 3. For the reasons recited with respect to claim 3, which will not be repeated in the interest of brevity, the Applicant contends that the Examiner has provided no disclosure in *Walsh* directed to the limitations with respect to claim 16. Thus, the Applicant asserts that claim 16 is not anticipated by *Walsh* and therefore, is allowable under 35 U.S.C. § 102 over *Walsh*.

Claim 17 is directed to a first data processing system for communicating with a second data processing system. The first data processing system includes interface means for transmitting the first information frame and for selectively receiving a first response in response to transmission of the first information frame, a timer for measuring a first amount of time between transmission of the first information frame and the receipt of the first response, the timer being coupled to the interface means, and a central processing unit coupled to the timer for selectively modifying a response time value in response to the first amount of time. claim 18 depends from claim 17 and is directed to the data processing system thereof in which the central processing unit dynamically modifies the response time value in response to the first amount of time. The Examiner asserts that claim 17 and 18 contain the same limitations set forth in method claims 11 and 12, and has rejected claim 17 on the same rationale set forth with respect to claims 11 and 12.

The disclosures in *Walsh* in which the Examiner relies in rejecting claims 11 and 12, which will not be repeated here in the interest of brevity, clearly fail to teach each and

every limitation with respect to claims 17 and 18. For example, the disclosures relied upon with respect to claims 11 and 12 do not teach a timer for measuring a first amount of time between transmission of the first information frame in receipt of the first response. Thus, necessarily, the Examiner has provided no teaching directed to a central processing unit coupled to the timer for selectively modifying a response time in response to the first amount of time. With respect to claim 18, because there is no teaching directed to the central processing unit for selectively modifying the response time value as recited in claim 17, necessarily, the Examiner has identified no teaching in *Walsh* directed to the limitations of claim 18. Hence, the Applicant respectfully asserts that a showing of anticipation of claims 17 and 18 by *Walsh* has not been made because the Examiner has failed to identify disclosure in *Walsh* directed to each and every limitation of these claims, and thus, claims 17 and 18 are allowable over *Walsh* over 35 U.S.C. § 102.

Claim 19 is directed to the first data processing system of claim 17 in which the data processing system further includes means for incrementing the response timer value by a preselected time period in response to the first amount of time. The Examiner contends that claim 19 is directed to the same limitations set forth in method claim 3 but for the recitation of "a preselected time period" in claim 19. The Examiner relies on the teaching in *Walsh* directed to a "predetermine[d] time interval at column 3, line 9." However, referring to *Walsh*, in context, shows that the predetermined time interval relied upon by the Examiner refers to a mechanism for initiating a speed-up request by monitoring the aforementioned Viterbi error metric value produced by a trellis-code demodulation process, wherein the speed-up request is generated whenever this metric value repeatedly exceeds a predetermined minimum value during a *predetermined time interval*. (*Walsh*, column 3, lines 4-9, emphasis supplied.) Thus, the disclosure in *Walsh* reciting a predetermined time interval is unrelated to the limitations recited in claim 19.

For this reason, and the reason recited with respect to claim 3, the Applicant respectfully contends that the Examiner has not demonstrated teachings in *Walsh* which disclose each and every limitation with respect to claim 19. Therefore, claim 19 is allowable under 35 U.S.C. § 102 over *Walsh*.

II. CONCLUSION

As a result of the foregoing, it is asserted by Applicants that the remaining claims in the Application are in condition for allowance, and respectfully request an early allowance of such claims.

Applicants respectfully request that the Examiner call Applicants' attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining problems.

Respectfully submitted,

WINSTEAD SECHREST & MINICK P.C.

Attorneys for Applicant

By: Barry S. Newberger
Barry S. Newberger
Reg. No. 41,527

5400 Renaissance Tower
1201 Elm Street
Dallas, Texas 75270-2199
(512) 370-2808

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